EUREMA BLANDA SARAHA (FRUHSTORFER) (LEPIDOPTERA: PIERIDAE: COLIADINAE) REDISCOVERED IN TORRES STRAIT, QUEENSLAND, AUSTRALIA

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Abstract

A female *Eurema blanda saraha* (Fruhstorfer, 1912) was collected on Dauan Island on 9 March 2016 and represents the first record from Torres Strait, Queensland, since 1909.

Introduction

Braby (2010) stated that *Eurema blanda* (Boisduval, 1836) is known, within Australian limits, only from Christmas Island (Indian Ocean) and Darnley Island in eastern Torres Strait. The record for the latter locality was based on a single male originally in the Australian Museum, reputedly collected by H. Elgner on 20 December 1909. The reliability of Elgner's record was in doubt, however, since the species had not been encountered for over 100 years, despite extensive surveys throughout the islands.

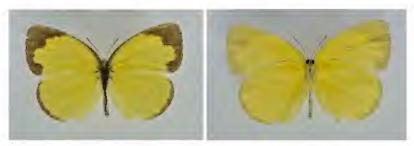
The original record was provisionally referred to subspecies *E. blanda indecisa* (Butler, 1898) by Waterhouse and Lyell (1914) and Waterhouse (1932) but subsequently replaced by *E blanda saraha* (Fruhstorfer, 1912), the mainland New Guinea subspecies, in the first and revised editions of Common and Waterhouse (1972, 1981) and in Braby (2000). In Papua New Guinea, *E. blanda saraha* is widespread throughout the mainland and may be common to abundant (Parsons 1998).

During a visit to Dauan Island in early March 2016, a single female of *E. blanda* was collected on 9 March, feeding on flowers in monsoonal vine scrub. The significantly larger size initially distinguished it from the very abundant *E. hecabe* (Linnaeus, 1758).

Discussion

Eurema blanda resembles E. hecabe and E. alitha (C. & R. Felder, 1862) but is distinguished by the sex brand in the males, the shape of the black marginal bands on the upperside of each wing, the presence of three brown dots in the cell of the forewing underside and the larger size compared with other Australian Eurema Hübner, 1819 species (Common and Waterhouse 1981, Parsons 1998).

The Dauan Island female of *E. blanda* (Figs 1-2) has the broad black marginal band at the apex with the inner margin less sharply indented at vein M₃ when compared with that of *E. hecabe* and *E. alitha*. The marginal band on the hindwing upperside of the Dauan Island specimen is narrow and not distinctly scalloped. The wingspan of 46 mm is consistent with that of *E. blanda saraha* from Papua New Guinea (female 50 mm) (Parsons 1998).



Figs 1-2. Eurema blanda saraha female from Dauan Island, Torres Strait, Queensland: (1) upperside; (2) underside.

Braby (2000) described seasonal variation in many of the Australian *Eurema* species, with the 'summer form' often having faint or occasionally absent markings on the underside of both wings, while the 'winter form' usually has more prominent markings. The specimen from Dauan Island lacks brown spos on the underside of the wings and is consistent with the 'summer form' of other *Eurema* species. It also lacks the three spots in the cell of the forewing underside that are typical of *E. blanda*; however, these cell spots may be reduced or absent in some 'forms' of *E. blanda* (http://www.boldsystems.org/index.php/Taxbrowser_Taxonpage?taxid=104436).

Parsons (1998) listed *Caesalpinia bonduc* (L.) Roxb. and various *Cassia* species (both Fabaceae: Caesalpiniodeae) as food plants. These plant species occur on Dauan Island, with *Caesalpinia* being reasonably abundant on the beach ridges along the northern and eastern sides of the island. Parsons (1998) also stated that females are known to lay eggs in very large batches of over 100 on the underside of the leaves of the food plants. However, no early stages of the species were observed.

The Dauan Island female is identified as *E. blanda saraha* as it meets the descriptions in Common and Waterhouse (1981) and Parsons (1998) and is consistent with the female *E. blanda saraha* (Fig. 3) from Papua New Guinea illustrated in Braby (2016). This specimen is the first recorded female from Oueensland and the first recorded from Torres Strait since 1909.



Fig. 3. *Eurema blanda saraha* from Papua New Guinea (reproduced from Braby 2016, with permission).

Further observations and specimens are required to determine whether the species is vagrant or established on Dauan Island. The abundant *E. hecabe* may have contributed to the lack of confirmed observations previously; however, the distinctly larger size of *E. blanda* compared with other *Eurema* species, particularly *E. hecabe* and *E. alitha*, is an important distinguishing attribute.

Acknowledgements

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References

BRABY, M.F. 2000. Butterflies of Australia: their identification, biology and distribution. CSIRO Publishing, Collingwood; xx + 976 pp.

BRABY, M.F. 2010. The merging of taxonomy and conservation biology: a synthesis of Australian butterfly systematics (Lepidoptera: Hesperioidea and Papilionoidea) for the 21st century. *Zootaxa* **2707**: 1-76.

BRABY, M.F. 2016. *The complete field guide to butterflies of Australia*. 2nd edn. CSIRO Publishing, Clayton South; 382 pp.

COMMON, I.F.B. and WATERHOUSE, D.F. 1972. *Butterflies of Australia*. Angus and Robertson, Sydney; xii + 498 pp.

COMMON, I.F.B. and WATERHOUSE, D.F. 1981. *Butterflies of Australia*. 2nd edn. Angus and Robertson, Sydney; xiv + 682 pp.

PARSONS, M. 1998. The butterflies of Papua New Guinea: their systematics and biology. Academic Press, London; xvi + 736 pp.

WATERHOUSE, G.A. 1932. What butterfly is that? Angus and Robertson, Sydney; 291 pp.

WATERHOUSE, G.A. and LYELL, G. 1914. *The butterflies of Australia*. Angus and Robertson, Sydney; vi + 239 pp.